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COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
DEPARTMENT OF SOILS AND PLANT NUTRITION

DAVIS, CALIFORNIA 95616

January 23, 1968

Professor J. Lederberg
Department of Genetics
Stanford University School of Medicine
Palo Alto, California

Dear Professor Lederberg:

I would like to contact you concerning a system I have been working on for some time. As you will see from the enclosed manuscript, I have what I believe to be evidence for transfer of information from bacteria to higher plants. (I had hoped to publish this brief account in Science followed by a detailed paper in a specialty journal, but the editors - probably correctly - thought that all the data should be presented in the first paper).

The mechanism of interaction is not clear, but some striking similarities to bacterial conjugation are emerging. Periodate, 10^{-3} M, completely inhibits bacterial induction of the plant permease, while bacterial transport and constitutive plant transport are only somewhat affected. Co-treatment of the bacteria does, likewise, severely inhibit induction of the plant permease, while bacterial transport is not or only slightly affected. Acridine orange has, however, so far not given clearcut results, and it has not been possible to permanently cure the bacteria of their ability to induce the plant permease.

If you do have the time, I would very much like to discuss this system with you. I am going back to Norway in March and I am now searching for ideas on how to proceed. The manuscript is very brief, and the referees made me realize that not everything may be as clear as it seems to me. For this reason it may be best if I could come down to Stanford at your earliest convenience to discuss this system with you and your coworkers. (I have a few slides made and will be pleased to give a seminar if you think that this may be of interest).

I will certainly understand if your schedule does not permit this, and I will welcome any suggestions you may have as to other persons to contact, other systems which may resemble mine, etc.

Sincerely yours

Per Nissen

Per Nissen

See Int Rev Cytol. 126:89-134 1991
BBA 600:205-211 1980
ARPcPh 25:53-79 1974